North Carolina Department of Juvenile Justice and Delinquency Prevention



Information Technology Plan 2009 – 2011

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Executive Summary

In 2004, the Department of Juvenile Justice and Delinquency Prevention (DJJDP) implemented the North Carolina Juvenile Online Information Network (NC-JOIN) as the State's first comprehensive juvenile justice information system. The Department implemented NC-JOIN in a phased approach beginning with juvenile court services and afterwards phasing in services provided in the State's juvenile detention centers and youth development centers. As the Department moves forward with future phases of NC-JOIN, several initiatives will aid in increasing the quality of service delivery as well as the usefulness of the data collected. Currently, NC-JOIN collects a significant volume of information on who the Department serves and why. This data includes demographic information, offense information, court history, and program placement information. The future plan includes expanding the type of data collected to address questions related to the level of effectiveness of programs and services provided to the juveniles served. Although data collection alone, without data integrity procedures, will only increase the volume of data collected.

The Department also plans to make relevant data available to other agencies, to the extent that the State's Juvenile Code allows. The General Assembly has mandated that a Criminal Justice Data Integration pilot program in be conducted in Wake County. The purpose of this pilot is to see what can be implemented to give employees in one agency access to relevant data that may be housed in another agency's database.

Although NC-JOIN has been the signature application for the Department, it is not the sole focus for the Information Technology Section. This year, DJJDP developed its first public web-based application for use by the Support Our Students program which serves thousands of students across the State. End user training and implementation will take place before the end of 2008. Additional projects that will be initiated over the next two years include:

- developing an application to record data on juveniles served by the local Juvenile Crime Prevention Councils;
- developing an application to capture data on staff development and training hours completed;
- developing an application to document incidents involving safety and security of staff and juveniles;
- developing an application enabling staff and supervisors to track their compliance of reading, understanding, and signing off on Departmental policies;
- developing new code to replace commercial software thereby reducing the cost of upgrading licenses;
- developing a series of data quality reports to assist chief court counselors and facility directors in managing the quality of data entered by their staff

These initiatives are intended to maximize use of existing resources. However, the increasing demand by business for technology improvements will require the need for increased resources in the future

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Introduction

Brief History: Organization and Information

Although the State of North Carolina has been providing services specifically intended for delinquent and undisciplined juveniles for approximately a century, it has been providing these comprehensive services through a single agency for less than a decade. The State has been collecting data through a single, statewide information system for five years. The evolution of the information system is, in many ways, a mirror of the evolution of the juvenile justice system itself. Like many other states, North Carolina's early efforts in this area were to provide an alternative to adult prisons. These occurred frequently as a result of efforts by individuals and community efforts with little in the way of a framework for continuity from a statewide perspective. Below are some examples of inconsistent service delivery to juveniles largely a result of a single Statewide delivery system.

- The State first provided funding for a training school in 1909 and for several others in years to follow, but the facilities originally operated virtually independently, each with its own board and no official policies common to all facilities until 1943.
- Early implementation of juvenile probation services occurred in a similar unplanned fashion. These services were to be provided through county welfare departments which did not necessarily have adequate staff or resources to provide them. For the most part, this remained true until the establishment of the Division of Juvenile Services within the Administrative Office of the Courts in 1974.
- Even though an Attorney General's ruling had stated that detaining children in jail was illegal, by 1934 only three juvenile courts had approved detention facilities under the State Board of Charities and public Welfare. County juvenile detention homes were initiated with the opening of a home in Durham County in 1945. Not until 1975 did the State transfer to one division all responsibilities for operating and maintaining state-owned detention facilities, inspecting facilities, training staff, providing technical assistance and developing and monitoring standards.

During the early years of the juvenile justice system, data on juveniles served was generally collected and aggregated at the local level. Since many facilities and offices operated more or less independently of others around the State, much of the data remained at that level. Even after some unification of services in the various areas of juvenile justice, the two major areas were located in two different agencies in two separate branches of state government: the training schools, detention centers, and community-based programs were in the Division of Youth Services (Department of Human Resources) and juvenile court services was located in the Juvenile Services Division (Administrative Office of the Courts). The Division of Youth Services had a hodgepodge of applications and databases that had information on many of the same juveniles being served at different points in the system. The Juvenile Services Division had no statewide application on juveniles with client-specific data. It is not an understatement to say that the evolution of how juvenile services were provided at this point mirrored

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the evolution of the collection of juvenile information. There were several well-intended starts and stops during most of the twentieth century, but progress was frequently restricted by the lack of a single Statewide initiative, both in providing a service delivery system as well as an information system.

In the late 1990's two initiatives got underway that addressed the organizational structure of the juvenile justice system as well as the juvenile justice information capability. In February of 1997, a small working group of representatives from various agencies began meeting to discuss how to best address a recommendation from a 1995 study commissioned by the Criminal Justice Information Network (CJIN) to establish a statewide juvenile justice information system. Initially, the group had only a small amount of planning money, and the "system" was still in two different agencies, so the obstacles to establishing a single information system were significant. Governor James B. Hunt, Jr., appointed, in September of the same year, the Governor's Commission on Juvenile Crime and Justice to conduct a comprehensive review of North Carolina's juvenile justice system. As part of this review, a recommendation was made to consolidate the Division of Youth Services and the Juvenile Services Division into a single entity in the Office of the Governor. In 2000, the Office of Juvenile Justice was made a cabinet level Department and renamed the North Carolina Department of Juvenile Justice and Delinquency Prevention. One of the items listed under the duties and powers of the Secretary of the Department is to "develop and administer a comprehensive juvenile justice information system to collect data and information about delinquent juveniles for the purpose of developing treatment and intervention plans and allowing reliable assessment and evaluation of the effectiveness of rehabilitative and prevention services provided to delinquent juveniles" (N.C. General statute 143-516 (b)(13). After nearly one hundred years, the State finally had a single juvenile justice system and a single juvenile justice information system.

Present State

In 2004, the Department implemented a web-based application known as the North Carolina Juvenile Online Information Network (NC-JOIN). In the first five years of the Department's existence, it was able to purchase computers for juvenile court counselors, detention center staff, and youth development center staff as well as establish an infrastructure to deploy an application. By 2004, the development work was completed on the initial phases of the application, training was provided and the application was implemented during the 2004 calendar year. Currently, all juvenile court counselors, staff at all juvenile detention centers, and staff at youth development centers have access to information in NC-JOIN. Their access is controlled by the security rights which are designated by the staff member's job role. Below is a list of the kinds of data collected in the NC-JOIN application.

- Basic demographics of juveniles
- Family, educational, and medical data on juveniles
- Risk and needs assessment data
- Supervision history
- History of the court actions regarding complaints filed (e.g., offenses, adjudications, dispositions, commitments)
- Placement history of juveniles (community programs, detention centers, youth development centers)
- Case notes

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Plans for 2009-11

Although DJJDP has made significant progress in implementing a statewide juvenile justice information system, there are some areas of need that should serve as basic guidelines for strategic planning for at least the next two years. Below are listed these basic planning guidelines and the proposed actions that the Department will take to address each.

Complete current projects.

The Department has already initiated efforts to address business needs identified by the business in four specific areas.

- The Community Programs Section has requested a web-based application for the Support Our Students Program which serves thousands of students across the State. Requirements, development, and testing have been completed on this project. Remaining tasks include training for users and implementation in the field.
- The Staff Development Section has requested a web-based application to enable staff at various locations across the State to enter and report data on staff training hours completed. While this will be used to monitor staff development activities for all staff, it is critical for those staff whose continued employment is contingent upon meeting basic training requirements of the Criminal Justice Training Standards Commission. Currently, staff development activities are entered in at least two separate applications. Initial meetings to gather requirements have begun.
- The Policy Office has requested a web-based application to enable staff and supervisors to track their compliance with reading, understanding and signing off on Departmental policies. Currently, this function is accomplished through an Access database that is inadequate for the task and is not available to anyone in the field. Initial meetings to gather requirements have begun.
- The Administrative Services Section has requested a web-based application to enable staff at various locations across the State to document incidents that occur while juveniles are under DJJDP supervision. The Department has an investigation unit that examines the circumstance surrounding any reported incident and actions taken as a result. Because these incidents involve the safety of juveniles and staff, the need to maintain an application that provides multiple people to access information on these incidents is critical. The Department currently has an application in place, but it is not web-based and information is entered from hard copies sent to the Central Office.

Initiate and complete applications to address the juvenile justice continuum.

One major area that needs improvement in the way it captures data on juveniles served is the area of community programs. The juvenile justice continuum of programs and services operated or funded by DJJDP includes programs funded through the Juvenile Crime Prevention Councils which exist in each county in North Carolina. The current data collection approach involves data

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entry at the program level by program providers who are not DJJDP employees, transferring data files to area offices and transferring again to the Central Office for compilation into a database. The Department is proposing the development of a web-based application to allow data entry at the program level with no transfer of data files from location to location. These local prevention and intervention programs have a significant role in the juvenile justice continuum, and this initiative can provide the capability to capture data more easily, increase data quality, and enable consultants to monitor program activity without waiting for reports from the Central office.

Enhance NC-JOIN to align more closely with business needs.

The NC-JOIN application currently does an excellent job of capturing data on the juveniles that DJJDP serves and why we are serving them. In general, this data is fairly objective in nature. Data such as demographic information, offense information, court history and program placement information is essential to a comprehensive juvenile justice information system. However, a second level of data is needed to address questions about the level of effectiveness of programs and services, and this level of information is not quite as easily identified as the first. For example, it is one thing to identify what program a juvenile received services from, but it is a more difficult task to evaluate the effectiveness of those programs and services. This information is not only valuable to the juvenile and his/her family, but also to DJJDP when making decisions on how best to allocate funds for the purpose of preventing delinquency or intervening in delinquent activities in order to discourage such behavior in the future.

The Department has required a service plan for each juvenile in its care. Each plan is intended to make the service delivery system operate with as much continuity as possible even when a juvenile is placed in a detention center or youth development center. This document will reflect the principles of the Model of Care adopted by the Department and may be the agency's single most important document developed from the aspect of service delivery. A document such as this should be in NC-JOIN if staff are expected to deliver the services contained in it. Likewise, periodic reviews of a juvenile's progress should be available to staff who are expected to monitor a juvenile's programmatic progress. Although business will have to develop the structure of this document and the nature of indicators included in it, the service plan must have a home location that is accessible to appropriate staff in different locations in the State.

Enhance data management capabilities.

In order to maximize use of data being collected every day, the Department will engage in two efforts to make better use of this data.

 Representatives of the business have requested that the IT section develop data quality reports within the NC-JOIN application to assist chief court counselors and facility directors in managing the quality of data entered by their staff. Because the volume of data generated exceeds the capability of managers to manually check on the quality of data being entered in NC-JOIN, these reports will enable them to focus on identified problems or potential problems.

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• Maximizing the usefulness of data collected by DJJDP also includes making relevant data available to other agencies to the extent that the State's Juvenile Code allows. Recently, the General Assembly has set aside funding for a Criminal Justice Data Integration pilot program in Wake County. The purpose of this pilot is to see what can be implemented to give employees in one agency access to relevant data that may be housed in another agency's database. Because the North Carolina Juvenile Code is specific in who is allowed access juvenile information, there may be significant implications regarding changes in the sharing of juvenile information.

Convert commercial software applications to those developed in-house.

Development on the NC-JOIN application was started in 2001 with the purchase of a Case Management commercial off-the-shelf package called Lightyear which was purchased from Softscape, Inc. This purchase allowed the Department to shorten the total development time and get the application implemented. Since that time, however, DJJDP has customized modules in the application and integrated new functionality using Java technologies. Maintaining the Lighyear code necessitates our staying with a Windows 2000 server platform unless DJJDP purchases certified version upgrades and support from Softscape. The purposed direction in this plan is to eliminate unnecessary future costs by eliminating the Lightyear functional code and converting NC-JOIN to an all Java platform.

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Major Factors That May Influence Strategic Planning

Economy

Recent economic events, both national and international, have resulted in a situation of economic uncertainty. Revenue projections at the State level were already projected to be below that for the originally anticipated and are most likely to be impacted by the national economic environment. The Department is making contingency plans for an operational budget likely to be cut in available funding sometime during the current fiscal year. Given these uncertain, if not gloomy, economic forecasts, the strategic planning for 2009-11 is limited in scope to items that do not entail large purchases of services or products by DJJDP and to doing all development and testing in-house.

Administration Changes

Because the current year is an election year, the uncertainty of what specific directions a new administration may take must be taken into account in strategic planning for IT as well as many other support functions within State government agencies. These changes may range in areas as diverse as organizational structure to program service delivery. At this time, a planning document can only set out some basic principles to be recommended to the incoming administration. The basic principles established in the Executive Summary are:

- to complete projects already begun this year,
- to reinforce efforts to increase the data integrity of data being collected,
- to convert applications using commercial software to those developed in-house,
- to partner with other justice agencies in a data integration pilot program.

Legal Changes

Because a study on changing the juvenile age in North Carolina has been mandated by the State's General Assembly, the possibility exists of the legal age of juvenile jurisdiction being raised from sixteen years of age to a higher upper limit. Since the study has not been completed, it is not possible to plan now for the possible changes that might occur as a result of an age change. A second legal implication that may occur either as a part of the age issue or separate from it includes changes in information sharing of juvenile information as a result of a Criminal justice Data Integration Pilot Program being piloted in Wake County.

Consolidation

During the last two years, the Department of Juvenile Justice and Delinquency Prevention has been a participant in the second phase of agencies in a statewide initiative to consolidate infrastructure functions under the Office of Information Technology Services (ITS). Although the consolidation effort has been largely accomplished, at this point it is still unclear as to the exact budgetary impact that consolidation will have on DJJDP for FY 2008-09 and beyond. As in the statement under the economic factor, this uncertainty leads this planning to limiting its scope to items that do not entail large purchases of services or products and doing all development and testing in-house

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Current State

Current Initiatives

This section presents an overview of current projects that DJJDP currently has begun developing or will be implementing during 2008-09.

Support Our Students (SOS) Application

Description: The Support Our Students (SOS) Program is a community based after-school initiative that provides support and guidance to elementary school (K-9) students by involving them in constructive activities. There are currently a total of about 250 sites in all 100 North Carolina counties, with each county hosting from 1 to 11 sites.

Current Status: Training is being conducted via webinar. Upcoming training dates already scheduled are: October 16-17, 2008 (Western Area); October 21-23, 2008 (Piedmont Area); October 28-30, 2008 (Central Area); November 4-6, 2008 (Eastern Area).

Projected Implementation Date: January, 2009.

Incident Reporting and Investigation System Application (IRIS)

Description: This application will document and ensure the safety of juveniles, their families, staff, and the public; that incidents are resolved in accordance with applicable statute and policy; and that all incidents are documented and reported so that trends may be recognized and addressed appropriately.

Current Status: Currently the design team is meeting to establish requirements for new system.

Projected Implementation Date: March, 2009

Policy Tracking and Staff Development Application

Description: This application will provide the Policy Department and Human Resources with a tool to accurately track policies read/signed by employees/temporary staff and capture educational accomplishments for employees. This will be a resource to notify employees of required training for their positions and track policies that have been replaced by another policy, amended, or repealed.

Current Status: Currently the design team is meeting to establish requirements for new system.

Projected Implementation Date: July, 2009

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Profile of Applications

The table below provides a snapshot of the current and proposed status of DJJDP applications as anticipated in the IT Plan for 2009-11.

Applications	Maintain	Enhance	Replace	Retire	New	Consolidate
1. NC-JOIN	Х	Х				
2. Lightyear			Х			
3. Incident Reporting System		Х				
4. Student Trust Fund						Х
5. DJJDP Policy Tracking			Х			
(Access)						
6. Staff Development			Х			
7. DJJDP Employee Intranet (replaces #5 and #6)					х	
8. JCPC Programs (Client Tracking)			Х			
9. JCPC Programs (Web-Based Client					X	
Tracking, replaces #8)						
10. Heat			Х			
11. Remedy (replaces # 10)					Х	

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Major New IT Initiatives and Investments

Initiative 1: Juvenile Crime Prevention Council System Application

Summary Description

Currently the programs funded by the Department through local Juvenile Crime Prevention Councils maintain data on juveniles served by those programs in an application installed on each program's computer and then transferred to an area office which, in turn, reconciles data and transfers it to the database maintained in the Central Office. This initiative would retire this application and replace it with a web-based application which could be accessed by program providers across the State.

Major Objectives and Benefits:

- Eliminate application installation problems due to operating system incapability
- Eliminate the manual process of sending and accumulating data files
- Improve data integrity and report content
- Reduce customer support

Timeframe:

■ January 2009 – December 2009

Relationship to Other Agencies:

 Any program provider in communities across North Carolina with access to the Internet will be able to enter data and run reports from their local sites.

Order-of-Magnitude Costs:

Developer time and resources: \$175, 000

Relationship to Agency's Results-Based Budgeting Goals:

Supports Goal # 4: Assist local governments, Juvenile Crime Prevention Councils, and private service agencies in development and delivery of community-based delinquency prevention and intervention services for juveniles in order to enhance the effectiveness, focus, delivery, and monitoring of services resulting in improved, more effective services for more youth and safer communities.

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Initiative 2: Lightyear Replacement

Summary Description

Our main NC-JOIN application was initially started in 2001 with the purchase of a Case Management COTS package called Lightyear. Over the years, DJJDP has customized the applications and integrated new functionality using Java technologies. We are currently locked into a Windows 2000 server platform due to a lack of certified version upgrades and support from Softscape. In order to move forward, this initiative would eliminate the Lightyear functional code by enhancing NC-JOIN to an all Java platform.

Major Objectives and Benefits:

- Eliminate the need of Windows 2000 server and move up to Windows 2003 server
- Eliminate application downtime problems due to the instability of Lightyear
- Provide reusability and extensibility with an all Java platform
- Reduce customer support

Timeframe:

■ June 2009 – June 2011

Relationship to Other Agencies:

Not applicable.

Order-of-Magnitude Costs:

■ Developer time and resources: \$ 400,000

Relationship to Agency's Results-Based Budgeting Goals:

Supports Goal # 5: Develop and administer a comprehensive juvenile justice information system to help management and stakeholders collect information to make data driven decisions regarding all aspects of the juvenile justice system.

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Initiative 3: Data Integrity

Summary Description:

In an effort to increase the data quality of data being collected on juvenile served across the continuum of programs and services operated or funded by the Department, one of the major initiatives being proposed for 2009-2011 is the development and implementation of data quality reports within the NC-JOIN application.

Major Objectives and Benefits:

- Identify additional validation requirements
- Reduce user data entry errors
- Improve data integrity

Timeframe:

■ January 2009 – June 2009

Relationship to Other Agencies:

- Provides accurate data to agencies such as the North Carolina Sentencing and Policy Advisory Commission with quality data for recidivism research
- Provides accurate data to other agencies serving juveniles also served by DJJDP to evaluate effectiveness of joint service delivery

Order-of-Magnitude Costs:

Developer time and resources: \$ 90,000

Relationship to Agency's Results-Based Budgeting Goals:

Supports Goal # 5: Develop and administer a comprehensive juvenile justice information system to help management and stakeholders collect information to make data driven decisions regarding all aspects of the juvenile justice system.

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Initiative 4: Data Integration

Summary Description:

This initiative is called the Criminal Justice Data Integration Pilot Program in Wake County and was mandated by the General Assembly in S.L. 2008-107. The basic purpose of the initiative is to set up a pilot program whose purpose is to establish a means for various criminal justice agencies to access information on offenders in the adult or juvenile systems.

Major Objectives and Benefits:

- Allows judges and district attorneys quick access to determine if a juvenile is currently under juvenile court jurisdiction
- Allows judges and district attorneys quick access to determine the juvenile record of an individual
- Allows DJJDP access to information on juveniles who have received adult charges

Timeframe:

Selection of product: October 1, 2008

Initial implementation: May, 2009

Relationship to Other Agencies:

 Allows designated officials from other criminal justice agencies such as AOC and DOC to view selected juvenile information collected and maintained by DJJDP

Order-of-Magnitude Costs:

Allocation by General Assembly for Pilot Program: \$5,000,000

Relationship to Agency's Results-Based Budgeting Goals:

- Supports Goal # 1: Plan, develop, and coordinate prevention, intervention and rehabilitative services and programs for juveniles and families in order to reduce juvenile crime, strengthen families, and promote safer communities
- Supports Goal # 2: Administer a statewide, uniform system of juvenile intake, protective supervision, probation, and post-release supervision services for juveniles who are alleged or found to be undisciplined or delinquent in order to reduce juvenile crime, provide opportunities for positive change in youth, and enhance community safety.

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Initiative 5: Service Delivery Enhancements to NC-JOIN

Summary Description:

The current version of the NC-JOIN application does a good job of collecting a significant volume of process outcome data, such as number of juveniles admitted, served, and terminated by various programs and services of juveniles. While some outcome data is currently being collected, DJJDP needs to improve the level and type of outcome data collected to more closely mirror the service delivery efforts of the business. As the Department moves away from a correctional approach toward a therapeutic approach as its core approach, the kind of data collected needs to be more reflective of this approach and should indicate progress made by juveniles.

Major Objectives and Benefits:

- To allow DJJDP a means to establish a single service plan that can be easily adapted to the program, facility, or service that he/she is receiving.
- To enables service providers, including both agency staff and local program providers, to capture outcome data regarding skill development and behavioral changes in a codified fashion that can be used for reporting and evaluation purposes.

Timeframe:

2010-11

Relationship to Other Agencies:

• This information can be used by local programs funded through DJJDP for evaluation purposes to make future decisions about local programs needs.

Order-of-Magnitude Costs:

Developer time and resources: \$ 90,000

Relationship to Agency's Results-Based Budgeting Goals:

- Supports Goal # 3: Operate and provide oversight of juvenile facilities and implement programs that assist and enable juveniles to learn positive behaviors, skills development, and enhancement of educational attainment so as to become self-supporting and reject further criminal activity.
- Supports Goal # 6: Design and implement effective strategies to reduce the over representation of minority youth in the juvenile justice system.

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Supports Goal # 4: Assist local governments, Juvenile Crime Prevention Councils, and private service agencies in development and delivery of community-based delinquency prevention and intervention services for juveniles in order to enhance the effectiveness, focus, delivery, and monitoring of services resulting in improved, more effective services for more youth and safer communities.

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